# Long Acting Injectable ART to Improve Adherence: Aspirations and Perils

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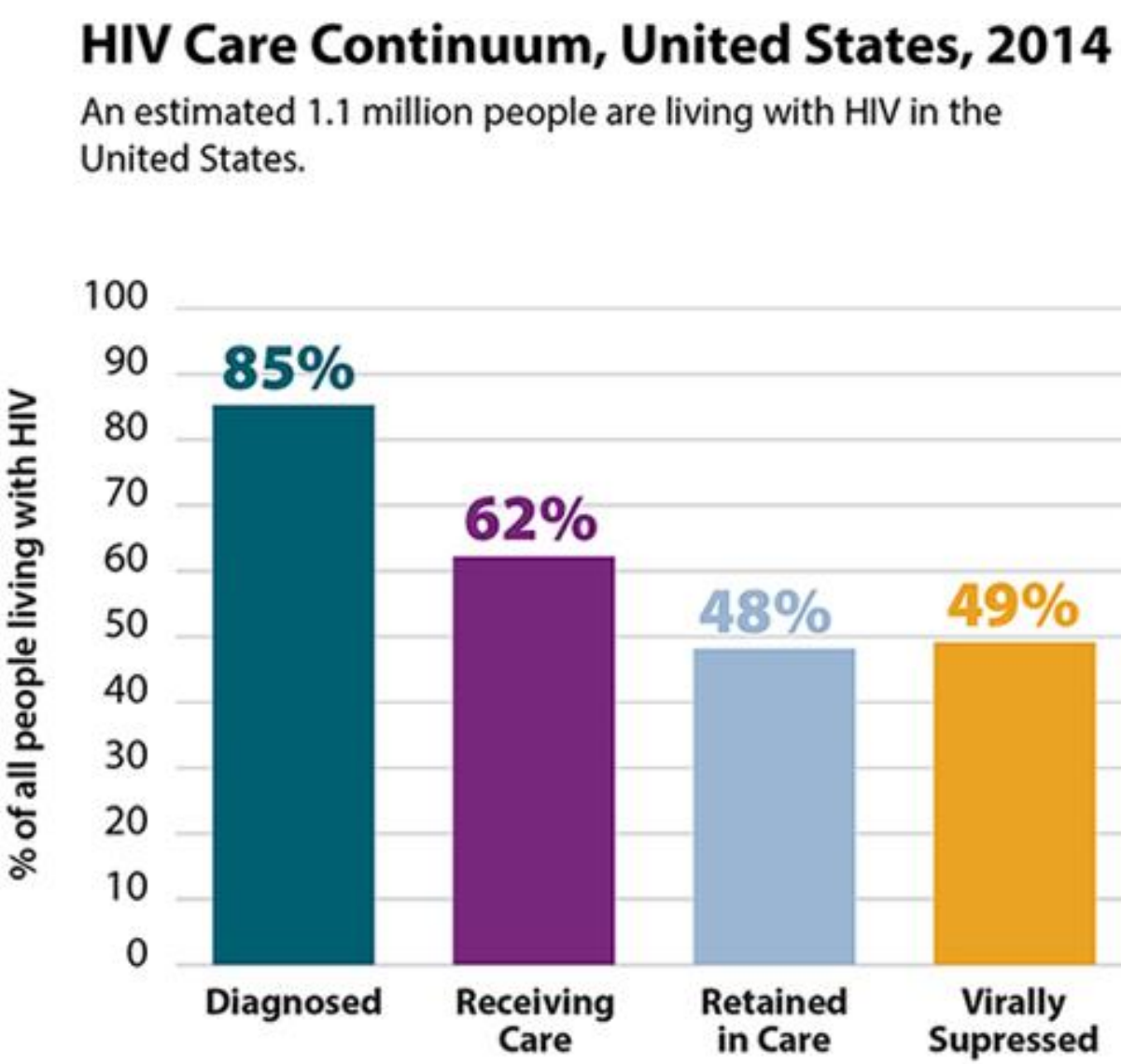
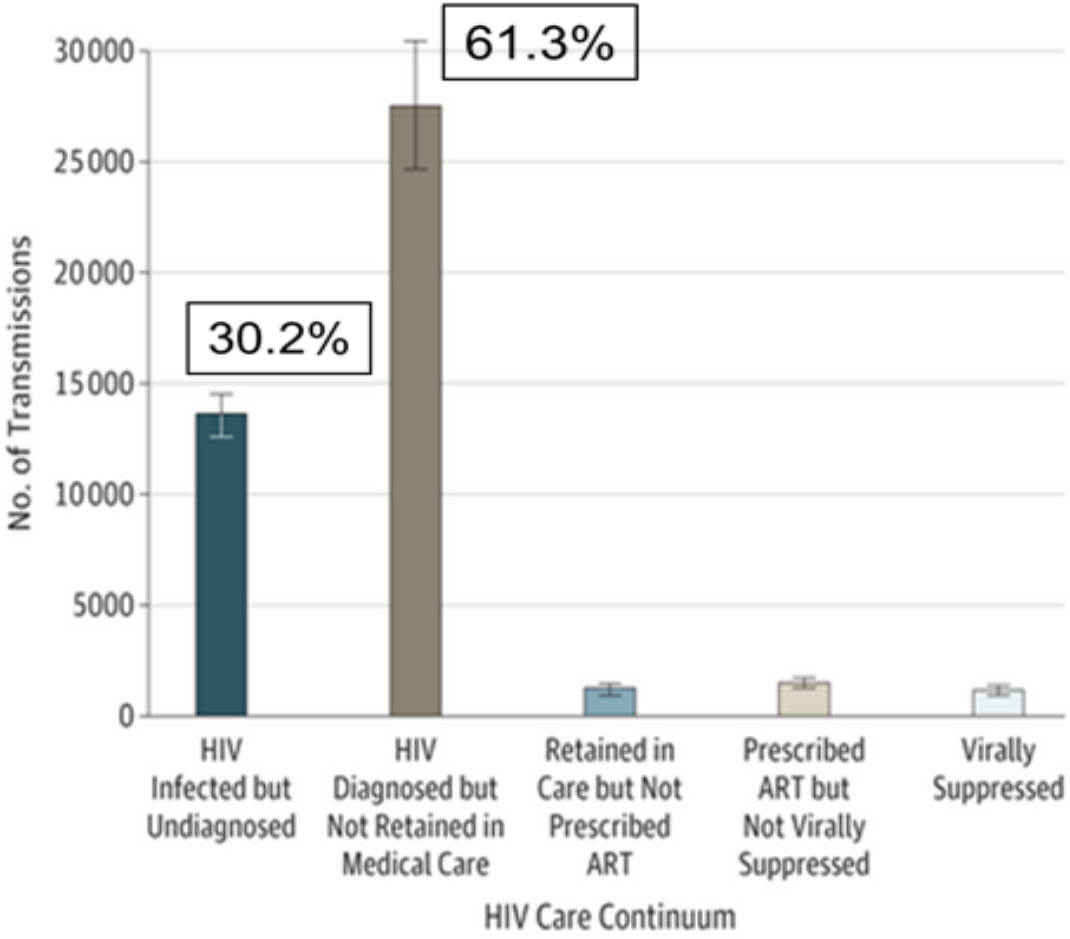
# Disclosures

- K23 Career Developmental Grant from National Institute of Mental Health
- Discussing the use of the following drugs that are not FDA approved:
  - Oral cabotegravir
  - Long-acting cabotegravir injectable
  - Long-acting rilpivirine injectable




https://www.cdc.gov/nchhstp/newsroom/2017/HIV-Continuum-of-Care.html

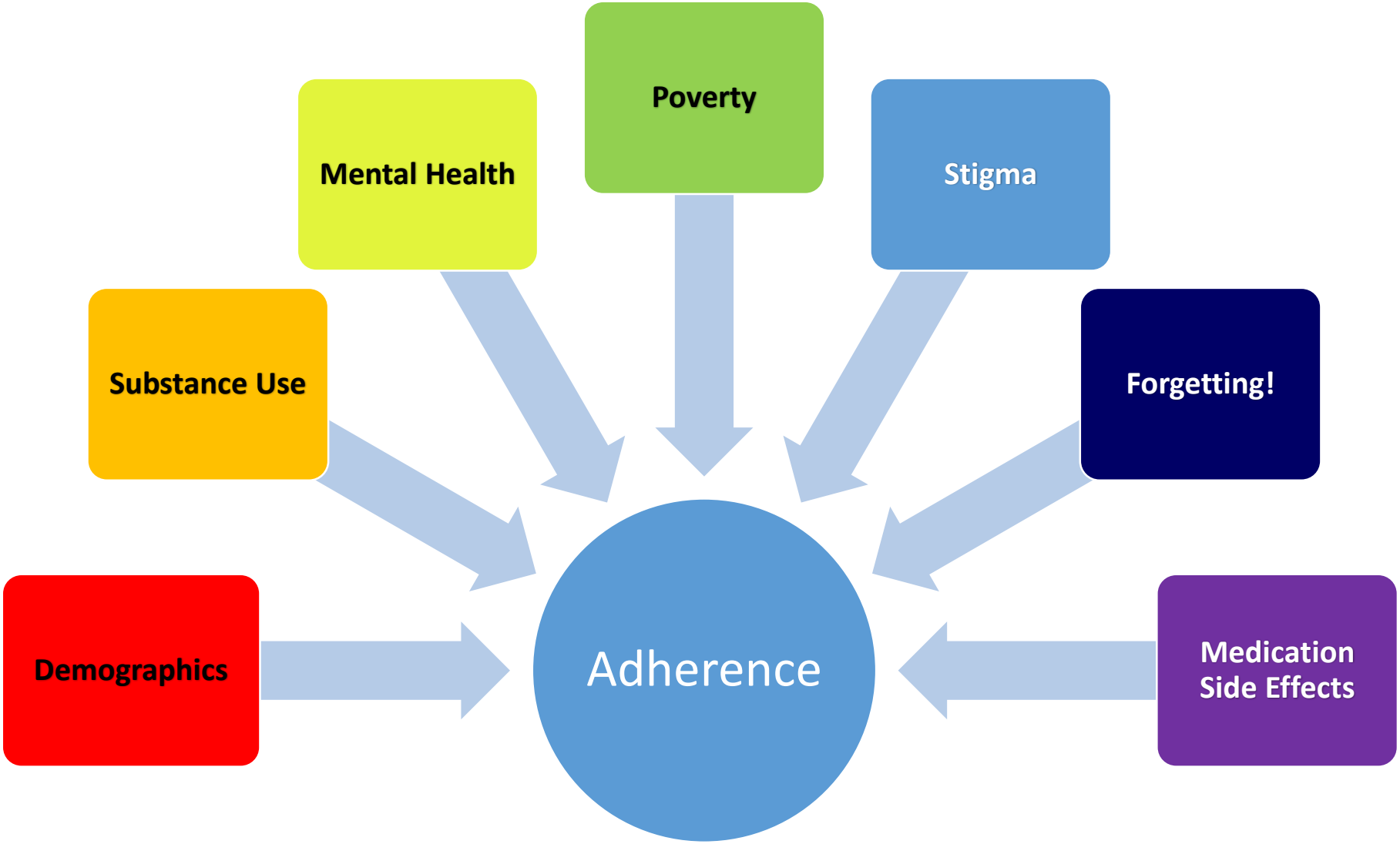



Skarbinski et al. *JAMA Intern Med* 2015;175

Data to Care
Improving health and prevention

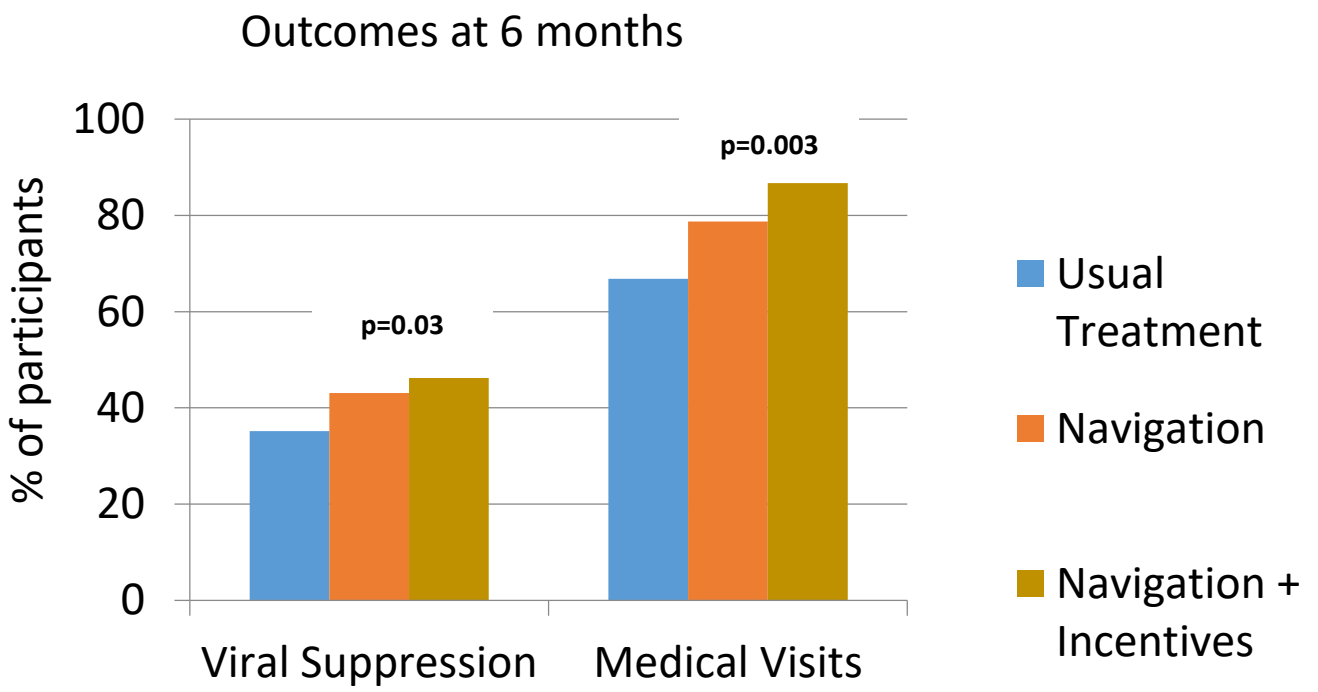
*Using HIV Surveillance Data to Support the HIV Care Continuum*

# Assessing Barriers to Care and Treatment



# Interventions

- ARTAS-Strengths based/Intensive Case Management
- Patient Navigation
- Enhanced Personal Contact
- Conditional Economic Incentives




Metsch LR et al. Effect of Patient Navigation With or Without Financial Incentives on Viral Suppression Among Hospitalized Patients With HIV Infection and Substance Use A Randomized Clinical Trial. *JAMA* 2016

# Could LA ART have a role in addressing some of these barriers?

- Directly-Observed Therapy
- Intolerant of oral medications
- Competing Responsibilities
- Stigma
    - *At the beginning I thought…Oh my God…I hope I get over this depression. But, my God…I hope I won't be taking these pills all my life. Then I went on to the injectable phase…and it was like I saw the light. And I said, God…how easy and convenient this is. It was like seeing the light*.-Spain, Male trial participant
    - *I love it because I don't have to take a daily medication, so that's just one less thing on my plate that I have to worry about… I definitely feel there's less pressure. I like the injection because it's not a daily, in my face, I have to do this*.–U.S., Female trial participant-
    - *In reality, taking the pill everyday keeps it [HIV] present …and the shot is just once a month…you remember it when you come in and the rest of the time you can basically forget it*.–Spain, Male trial participant

Kerrigan D et al. Experiences with LA ART: A qualitative study among PLHIV participating in Latte-2 in the US and Spain. PLOS One. 2018.

# Challenges with the use of LA ART

- Induction period on oral ART


- 2 drug ART regimen with rilpivirine and cabotegravir: limited to those WITHOUT an extensive history of resistance
- Long half-life of injectables: Risk of development of resistance


- Side-effects to Injections

- Cost

- Unstudied populations, Women of Child Bearing Potential

# ACTG 5359
# A Phase III Randomized-Control Trial to Evaluate Long-Acting Antiretroviral Therapy in Non-adherent HIV-Infected Individuals

**Co- Chairs:** Aadia Rana, Jose Castillo-Mancilla

**Co- Vice Chairs**: Raphael J. Landovitz, Karen Tashima

**Investigators:** Omar Galárraga (Behavioral Economist), Michael Stirratt (NIMH), Steve Shoptaw (NIDA), David Wohl

**Pharmacologists:** Adriana Andrade, Ed Acosta, Gene Morse

**SDAC:** Summer Zheng, Jeremiah Perez

**DAIDS:** Karin Klingman, Tia Morton

**CTS:** Mwenda Kudumu

**CSS:** Laurency Gaston

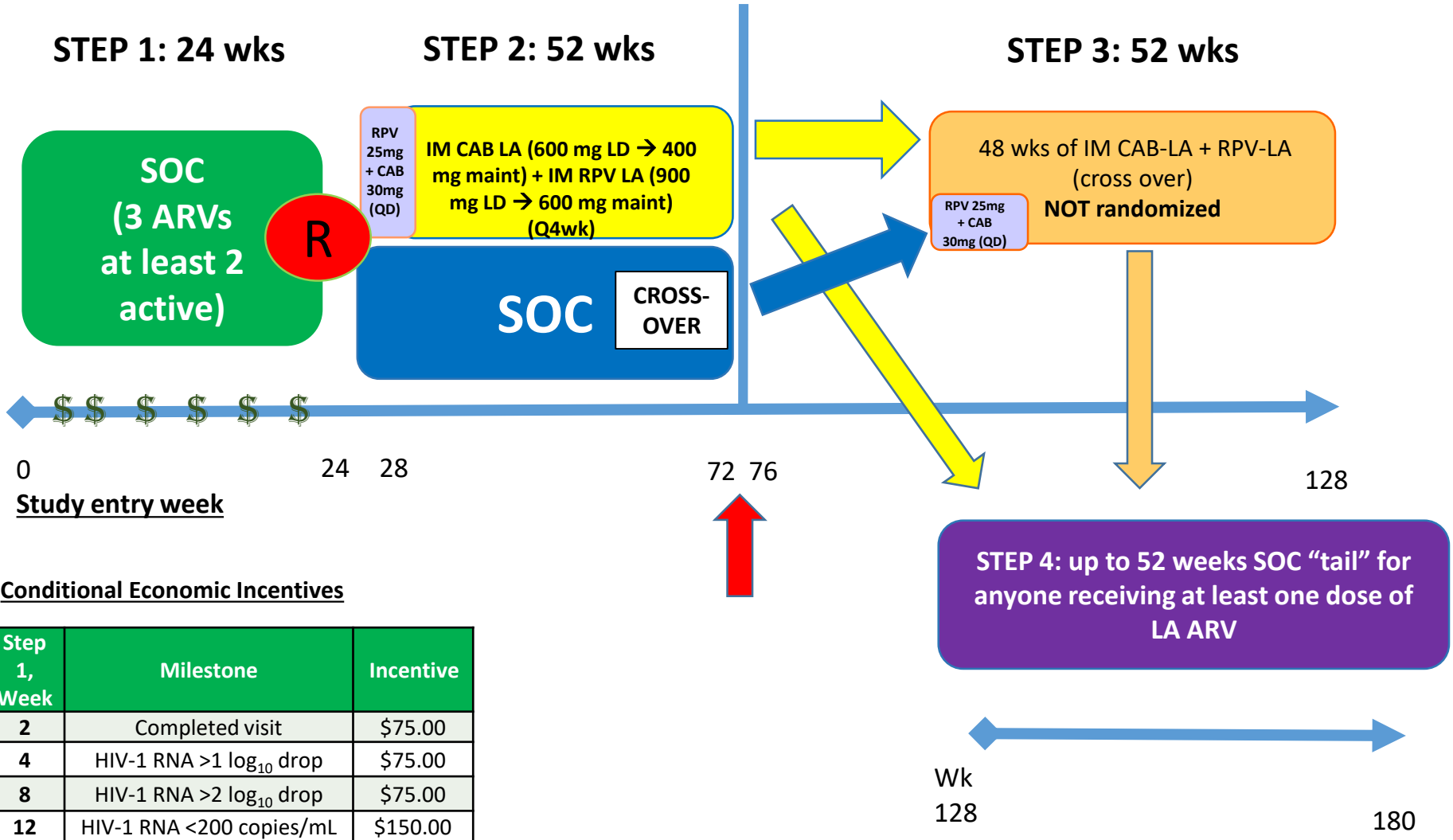
**Industry Reps:** Kim Smith (Viiv), Paul Wannamaker (Viiv), Viviam Cannon(Janssen)

**Field Rep:** Becky Straub (UNC)

# A5359 Eligibility

- ART-experienced, HIV-infected males and non-pregnant females ≥18 years of age with:
    - HIV-1 RNA >200 copies/mL
    - Evidence of non-adherence according to at least one of the following criteria:
        - Poor virologic response within 18 months prior to study entry (defined as <1 $\log_{10}$ decrease in HIV-1 RNA or HIV-1 RNA >200 copies/mL at two time points at least 4 weeks apart) in individuals who have been prescribed ART for at least 6 consecutive months.
        - Loss to clinical follow-up within 18 months prior to study entry with ART non-adherence for ≥6 consecutive months. Lost to clinical follow-up is defined as either no contact with provider or missed 2 or more appointments in a 6-month period. ART non-adherence is defined as a lapse in ART ≥7 days (consecutive or non-consecutive), in the 6-month period where they were lost to clinical follow-up per participant report.
    - No evidence of any clinically relevant RPV or INSTI resistance-associated mutations (historically or upon screening).
    - Ability of site clinician, in conjunction with participant, to construct a ≥3-drug ART regimen with ≥2 drugs predicted to be fully active, including a boosted PI/cobi and/or an INSTI.

# A 5359 Study Design




**Conditional Economic Incentives**

| Step 1, Week | Milestone | Incentive |
|---|---|---|
| **2** | Completed visit | $75.00 |
| **4** | HIV-1 RNA >1 $\log_{10}$ drop | $75.00 |
| **8** | HIV-1 RNA >2 $\log_{10}$ drop | $75.00 |
| **12** | HIV-1 RNA <200 copies/mL | $150.00 |
| **16** | HIV-1 RNA <200 copies/mL | $150.00 |
| **20** | HIV-1 RNA <50 copies/mL | $150.00 |


SOMETHING NEW
SAME OLD WAY